Abstract

The rotor position of a synchronous motor (2) is determined,
in that for a plurality of current vectors (I) distributed
over one electrical rotation of the synchronous motor (2), the
amount of the current vector (I) which is necessary to attain
a defined deflection of the rotor (R) is determined. The
position of the rotor (R) can be calculated from the position
of the minima of the amounts thus determined, taking into
account the direction of rotation of the rotor (R). The
engagement of a brake (5) ensures that grooving forces and
machine vibrations play no role for the method to determine
the rotor position.

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